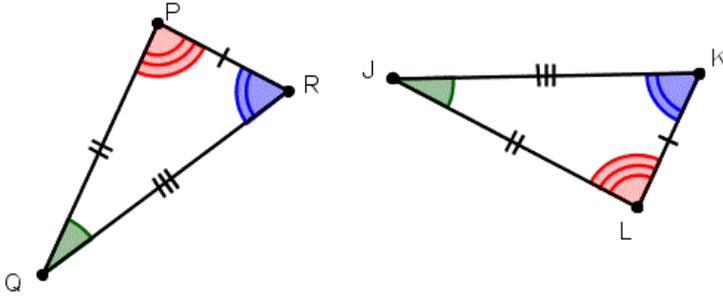


# Congruent Triangles and Criteria/Shortcuts

## Module 1



1-1: Are these two triangles congruent? How do you know?

1-2: List all the pairs of matching parts:

1-3: How many matching pairs are there? \_\_\_\_\_

1-4: Complete the *congruence statement* (be careful with the order):  $\Delta PQR \cong \Delta$ \_\_\_\_\_

## Module 2

As you saw in module 1, congruent triangles have a lot of matching parts. The good thing is, to prove that two shapes are congruent, you *do not* need to show *all* the pairs match. You only need to show that three pairs match. These are called Congruence Shortcuts (or *criteria*). Combinations of Sides and Angles are required.

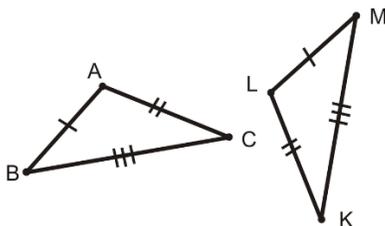
2-1: Which shortcuts work? Use the online tool at [mgeo.weebly.com](http://mgeo.weebly.com) to explore. See the Instructions link.

Shortcut	Does it always create two congruent triangles?
SSS	
SAS	
AAA	
AAS	
ASA	
SSA	

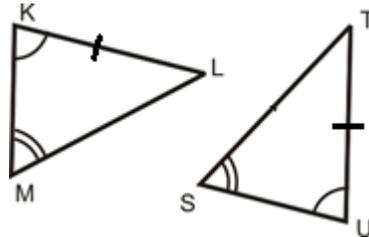
Four Triangle Congruence Shortcuts That Always Work

2-2: Strike thru the 2 shortcuts that do not always work. Write the 4 shortcuts that do work into the box.

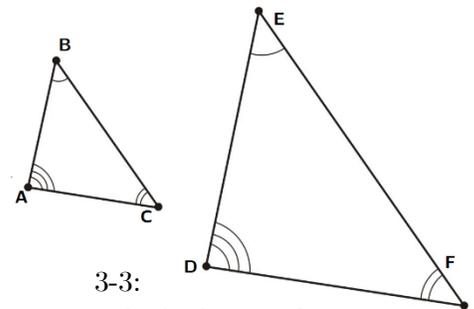
Module 3: Are the pairs of triangles below congruent? Indicate which shortcut allows you to know. If they are congruent, write a congruence statement.



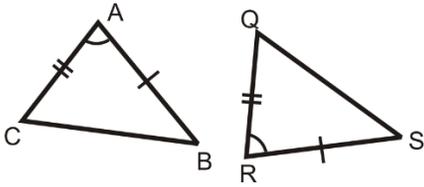
3-1:  
Which shortcut? \_\_\_\_\_  
Congruent or not? \_\_\_\_\_  
Congruence statement:



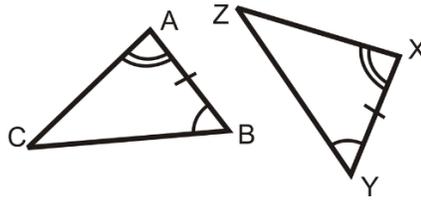
3-2:  
Which shortcut? \_\_\_\_\_  
Congruent or not? \_\_\_\_\_  
Congruence statement:



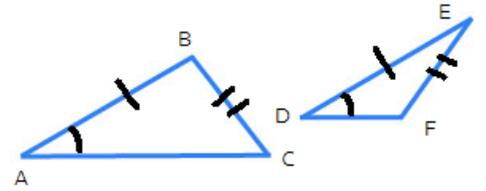
3-3:  
Which shortcut? \_\_\_\_\_  
Congruent or not? \_\_\_\_\_  
Congruence statement:



3-4:  
 Which shortcut? \_\_\_\_\_  
 Congruent or not? \_\_\_\_\_  
 Congruence statement:



3-5:  
 Which shortcut? \_\_\_\_\_  
 Congruent or not? \_\_\_\_\_  
 Congruence statement:



3-6:  
 Which shortcut? \_\_\_\_\_  
 Congruent or not? \_\_\_\_\_  
 Congruence statement:

Module 4: Visit the link on [mgeo.weebly.com](http://mgeo.weebly.com) marked “ONLINE PRACTICE” and complete the 12 problems shown. Record your progress here.

Question	1	2	3	4a	4b	4c	5	6	7	8a	8b	9	10	11	12
1 <sup>st</sup> try: ✓ or X															

Module 5: Visit the link on [mego.weebly.com](http://mego.weebly.com) marked “TEXTBOOK PRACTICE”

If you have never used the online book before, click “New to Springboard”

Access code: JRGDSU

Enter in your information and use *MathRules9!* as your password.

Write down your auto-generated username here:

<http://hamiltontn.springboardonline.org>  
 Username:  
 Password: MathRules9!

You will now see your Springboard homepage. Click “My Calendar and Assignments”, then “Triangle Congruence Practice”

Question	1	2	3	4	5	6	7	8
1 <sup>st</sup> try: ✓ or X								

Homework:

Watch the 2 videos linked at [mgeo.weebly.com](http://mgeo.weebly.com) (neither has sound, btw)